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TRANSMITTAL FORM

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Application Number	10/600904
Filing Date	06/20/2003
First Named Inventor	Robert Sigurd Nelson
Art Unit	2882
Examiner Name	Irakli Kiknadze
Attorney Docket Number	

Total Number of Pages in This Submission

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☒ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
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- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
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- ☐ Drawing(s)
- ☐ Licensing-related Papers
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- ☐ Petition to Convert to a Provisional Application
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- ☐ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☐ Other Enclosure(s) (please Identify below):

Remarks

3 page response to examiner

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name			
Signature	Robert Sigurd Nelson		
Printed name	Robert Sigurd Nelson		
Date	March 4, 2006	Reg. No.	

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	Robert Sigurd Nelson		
Typed or printed name	Robert Sigurd Nelson	Date	March 4, 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Appl. No. : 10/600,904
Applicants : Robert Sigurd Nelson, William Bert Nelson
Filing Date : June 20, 2003
Examiner : Irakli Kiknadze
Art Unit : 2882
Title : DEVICE AND SYSTEM FOR IMPROVED IMAGING IN NUCLEAR MEDICINE AND MAMMOGRAPHY

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

March 4, 2006

Dear Mr. Kiknadze:

In response to the Office Action post marked January 24, 2006, please see the following remarks for application 10/600,904.

REMARKS

In the office action post marked January 24, 2006 the Examiner accepted claim 59 and rejected claims 57, 58 based on Dobbs, Spitz, Kump, and Walters.

Applicants will address first the rejection of claim 57 as being anticipated by Dobbs (Pat. No. 5,444,752). Dobbs describes a means of compensating for the temperature-dependent response of a solid state detector used with a CT imaging system by exposing the detector to a broad-band (conventional) x-ray source and recording the detector response as the temperature of the detector is varied externally and thereby creating a temperature calibration table (col. 4, lines 30-33, column 6, lines 59-61 and 64-68). Dobbs' detector does not offer energy resolution but rather is a traditional integrating detector. Dobbs does not calibrate the energy spectrum of the x-ray beam as a function of position at the detector.

The inventors describe employing a x-ray detector capable of measuring the energies of photons. This means that the detector can measure not only how the intensity of the beam varies spatially but also the how the energy spectrum of the x-ray beam varies spatially. In other words, the intensity for each energy in the single x-ray beam spectrum can be measured as a function of spatial location of each detector pixel. This can be done with a single KVP x-ray beam. This single x-ray beam spectrum data set for each pixel is compared against the data set of energy and intensity acquired when imaging a patient with the same single x-ray beam spectrum. Using a detector with